RELATIONSHIP BETWEEN HEALTH CONSUMER KNOWLEDGE AND HEALTH FOCUS OF EARLY ADOLESCENTS

by

Kathleen Stillion-Allen

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THE UNIVERSITY OF UTAH GRADUATE SCHOOL

SUPERVISORY COMMITTEE APPROVAL

of a thesis submitted by

Kathleen Stillion-Allen

This thesis has been read by each member of the following supervisory committee and by majority vote has been found to be satisfactory.

Tarmina, R.N., M.S.

Christine Gillies, R.N., M.S.

Athleen B. Coyner, M.S.

THE UNIVERSITY OF UTAH GRADUATE SCHOOL

FINAL READING APPROVAL

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I have read the thesis of Kathleen [redacted] in its final form and have found that (1) its format, citations, and bibliographic style are consistent and acceptable; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the Supervisory Committee and is ready for submission to the Graduate School.

[redacted]
Date

[redacted] M. [redacted] R.N., M.S.

Approved for the Major Department

[redacted]
Linda K. A os, Ed.D., F.A.A.N.
Chairman Dean

Approved for the Graduate Council

[redacted]

ABSTRACT

The purpose of the study was to explore the relationship between health consumer knowledge and the health focus of early adolescents. Forty-four seventh grade students completed pre- and posttests in coordination with the presentation of a health consumer teaching unit designed by the investigator.

Scores were calculated regarding health consumer knowledge, medicine/drug attitudes, health locus of control and sources of health information. The scores were subjected to analysis using t-tests and Pearson's R correlations.

A relationship between health consumer knowledge and health focus was nonconclusive. Findings regarding drug/medicine attitudes were highly significant. A need to initiate teaching to avert over-the-counter drug abuse/misuse was recognized.

The complex interplay of varying cognitive, affective and behavior components affecting health focus were acknowledged. The role of nurses in presenting health consumer information to assist clients toward self-responsibility and compliance in health care was emphasized.

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CHAPTER I

INTRODUCTION

As the cost of health care products and services has increased over recent years, the need for knowledgeable health consumers has become a reality. The role of the consumer in American health care, as purchaser and decision-maker, is continually achieving a more responsible position. Today, information about consumer behavior regarding health issues is a) essential to the marketing strategies of independent practices, health maintenance organizations and health care product/supply corporations, b) integral to government regulations on food and drugs, c) a determining factor in the nature of health benefit packages in the labor force, and d) an important area for the focus of various public health programs and policies.

In view of the important role health consumers will have in the health care decisions of the future, the time to instill a desire for self-motivation and self-direction within today's youth is now. Introducing health consumer topics into school health

curricula is rapidly becoming a common practice. Recognizing the strategic position schools play in the promotion of health, there is a need to carefully evaluate the quality and effects of health consumer information presented to students at all levels of education.

Purpose

The purpose of the study was to explore the relationship between the health focus and health consumer knowledge of early adolescents.

Significance for Nursing

Preventive health care has been an emphasis of the nursing profession for many years. Building upon this basic foundation, school nurses have developed a significant role in health education within the schools.

School nursing began at the turn of the twentieth century. At that time, the primary function of the school nurse was to control the spread of communicable diseases (Dickinson, 1971). However, with the advent of immunizations, both the importance of the school nurse and the role were greatly altered. Having vaccines to prevent some communicable diseases freed the school nurse to perform other functions. Today the role combines screening, teaching, assessing, planning, implementing and evaluating to provide a wide range

of school health services (Bryan, 1973). With the evolution of school nurse practitioners, prepared at the graduate level, has come the opportunity for nurses to better meet the myriad of comprehensive health problems facing the school-age population.

School nurses, school nurse practitioners in particular, are in a key position to inform tomorrow's consumers about their choices, rights, and responsibilities in the health care system. In addition, school health offices serve as a setting for students to initiate health encounters and have an opportunity to practice newly acquired health consumer skills.

CHAPTER II

REVIEW OF LITERATURE AND CONCEPTUAL FRAMEWORK

Consumer Health

In 1976, the Task Force Report of the National Conference on Preventive Medicine defined consumer health education as "a process that informs, motivates, and helps people to adopt and maintain healthy practices and lifestyles, advocates environmental change as needed to facilitate this goal and conducts professional training and research to the same end"(Fogarty, 1976, p. 3). The concept of health consumer has been used in a wide variety of ways. Cron (1981) stated that the term identifies health as a market place activity or service, the subject of negotiation between buyers and sellers. Other areas included in the term consumer health are self-care and a person-centered rather than a system-centered view of contemporary health status. Self care issues include preventing the abuse/misuse of over-the-counter medications. The prevalence of over-the-counter drug misuse has been the focus of studies in both young adult and geriatric populations

(Cafferata, Lack & Reifler, 1980; Michocki, 1982).

Within the human rights movement, the concept of the consumer emphasizes the participation of individuals in health policy and self-determination with a decrease in the influence of the professions and technology on policy and decision-making. Public interest in the control of prices, services and the quality of care related to cost outcome and efficiency may be indicated by the trends (vanden Heuvel, 1980). "Consumer health has already had -- and will continue to have -- a profound impact upon the development of public health policy at all levels of government and in all sectors of society. It is an impact, however, that is positive, constructive, and contemporary" (Cron, 1981, p. 278).

The report of the Mid-Century White House Conference on Children and Youth advocated the participation of children and parents in the process of providing care. Lewis (1977) stated that the health of future adults can be improved only by focusing upon the way that adequate care is provided to today's children. Until the fact is accepted that each future adult must be responsible for personal health and treated accordingly, external control will replace internal responsibility. Consumer power will play a dominant role in the health practices of Americans. Health professionals should learn to work with, and encourage its active implementation.

The health concept should encompass physical, mental and environmental elements as related to health over a lifetime. A study conducted with first, fourth, and seventh grade students interpreted children's views of health within a developmental context. The results demonstrated that children view health as a particular state supporting the performance of desired activities. Health was perceived as a long term process, involving the body, mind and in some cases, the environment. Evidence of abstract thinking was demonstrated by the 12-year olds with 32 percent concerned about mental health. Ideas about health were found to mature with age. Abstract ideas, such as mental health and part-whole relationships were believed to enter the health concept as the child approached adolescence. The abstract thinking abilities of the adolescent enable conceptualization of topics as implications for future health status. The study provided direction for developing future health curricula for adolescents (Natapoff, 1978).

Call (1977), in a study conducted with children ages 6 to 12, noted age-linked increase in precision of definitions of illness. The older child and adolescent moved toward what might be called "a socialized illness concept," beyond the confines of a narrow range of illness-defining states. Conceptual depth

was added by recognizing role performance and psychosocial dispositions as significant defining themes.

Millstein (1981) noted qualitative differences in adolescent concepts of illness demonstrated strong developmental trends. Young adolescents had qualitatively more abstract definitions such as mental health and illness prevention, as do adults. The adolescent rank-ordered use of illness themes (e.g., preventing the ability to perform desired activities) was more like that of younger children. The observations reflected the transitional nature of the adolescent period.

Through the studies investigating illness concepts, implications for health education have been defined. Health education efforts have traditionally focused upon potential health hazards in terms of disease consequences (Millstein, 1981). Educational efforts may prove more successful in influencing behaviors if preventive approaches stress immediate and long term disabilities associated with such behaviors and their implications for daily performance.

Conceptual Framework

An interplay of theoretical concepts provided a triune foundation for the study. Theories regarding adolescent growth and development, locus of control, and the Health Belief Model were reviewed to construct

the framework for conceptualizing adolescent responses to health consumer issues (Figure 1).

Adolescent Development

Adolescence is a complex and often turbulent period of development. At the onset the child is still at play, dependently attached to the family while at the end, the individual has assumed a personality and is self responsible. Lidz (1976) described adolescence as the transition from childhood to the attainment of adult prerogatives, responsibilities and self-sufficiency. During the period, youth can prepare for self-sufficiency and independence while still gaining support, protection, and guidance from the family. The transition encompasses physical, emotional and cognitive growth. For the purpose of this study, theories regarding cognitive growth were considered the most important.

Piaget described the cognitive development of the adolescent as the period of formal operations (Miller, 1978). Acquisition of a new scope of intellectual functioning begins at about the age of 11 or 12 but capacities develop for several years, consolidating at about the ages of 14 or 15. Continuing into early adulthood is the process of "decentering," moving away from the egocentrism of childhood towards gaining perspective regarding the viewpoints and feelings

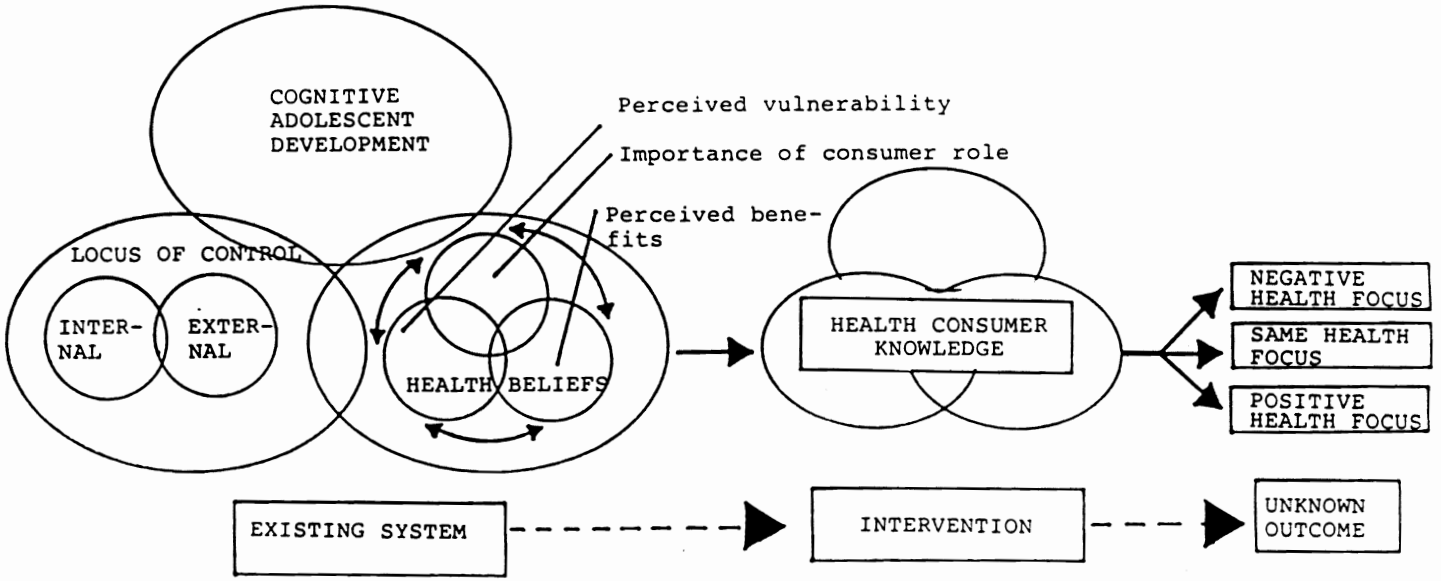

Figure 1. Conceptual model.

of other individuals. During the period of formal operations, the child becomes capable of propositional logic, an ability to think about concepts without the use of language whereby concepts can be abstracted from reality and be manipulated by the imagination. A concern about figuring out solutions to real problems and anticipation about the course of future events unfolds for the young person.

Three major needs that characterize most of adult life begin to crystallize during early adolescence. Lust, the first major need and intimacy, the second, move adolescent relationships from a same-sexed to opposite sexed peer focus. Adolescents may find it easier relating to a health care provider of the same sex since an ability to comfortably relate to members of the opposite sex is not well established. The third need is for personal security or freedom from anxiety. Personal security may take the form of maintaining personal health. The task at hand is for the adolescent to become aware of and properly integrate the three needs into the self (Rappaport, 1972).

As children move toward adulthood the base of knowledge becomes enlarged, organized and repeatedly transformed. General intellectual development and unique learning experiences contribute to changing conceptualizations (Campbell, 1975). Learning about

health related phenomena occurs via social learning and information transfer. The former pathway is operant from birth, the latter dependent upon the cognitive development of the individual (Lewis, 1977).

Other developmental aspects were considered as related to the study. Moral development was described by Kohlberg. The adolescent has a sense of conventional morality, thereby categorizing issues as "right" or "wrong" and establishes a sense of "doing one's duty." Various health promoting habits may be viewed as "right" while habits detrimental to the adolescent may be viewed as "wrong." The adolescent may base decisions regarding daily habits on a moralistic foundation rather than as a result of considering physiological effects. Similarly, the adolescent may have preconceived ideas regarding "right" or "wrong" methods for communicating with care providers. Interactions with health care personnel may reflect such thoughts. During the adolescent years, the individual has the task of attaining moral conformity within the self in respect to societal norms (Miller, 1979).

Lowrey noted the adolescent may tend to be very idealistic, desiring to correct society's errors (Miller, 1979). Two prerequisites exist for such idealism to be exhibited. Moral development must have progressed to a point of desiring to "do one's duty"

in assisting the general population. Cognitive abilities must allow the individual to conceive the future and imagine the thoughts of other people. The adolescent is striving for self-sufficiency and independence. Developmentally, a high degree of control in health encounters and health status should be of importance to youth.

Locus of Control

Considerable research regarding locus of control in adults has been conducted by a variety of authors. Rotter (1966) described locus of control within the context of reinforcement stemming from social learning theory. If a reinforcement was perceived as the result of luck, chance, fate, under the control of powerful others, or unpredictable because of the complexity of surrounding forces, a belief in external control exists. In contrast, if a person perceives that an event is contingent upon personal behavior or relatively permanent personal characteristics, a belief in internal control is demonstrated.

The body of research investigating the locus of control variable in children was much smaller and less conclusive than the research done with adults. Recognizing the deficit, development of a reliable instrument for researchers to utilize in studying the effects

of a generalized locus of control orientation on the behavior of children was undertaken. Through scale development and research, Norwicki and Strickland (1973) concluded that the locus of control factors appear to significantly impact children's behaviors. Continued research was suggested applying the locus of control dimension to specific areas.

In a study with secondary school children ages 12 to 17, using the Norwicki-Strickland Scale, a belief in internal control was found to increase with age (Maqsud, 1980). The study has particular relevance to other research utilizing adolescent populations. A correlation may exist between the attainment of normal adolescent development such as identity formation and the ability to perceive an internal locus of control.

Tolor (1978) chose to look at antecedent factors and personality correlates in relation to health specific locus of control. The study examined whether a history of early childhood illnessses and accidents was a determinant in internal/external locus of control in adults. The results suggested a positive relationship between the number of childhood illnesses/accidents and an external locus of control in females. A non-significant trend towards the correlation of childhood illnesses/accidents and internality in males was

observed. The results were interpreted by Tolor (1978) as suggesting the context of differential cultural role expectations for the sexes were important factors in these observations.

Health Belief Model

In 1966, an approach for explaining health behavior called the Health Belief Model was introduced by Rosenstock. The Health Belief Model stated that the likelihood of a person engaging in some specific health action is a function of a) the perceived susceptibility (or vulnerability) to a specific health problem, b) the extent to which the problem is seen as being serious, and c) the benefits believed to accrue if the recommended action is taken.

A study utilizing the Health Locus of Control scale with an adult population was conducted by McCusker and Morrow (1979). The relationship between health locus of control and the Health Belief Model was investigated. The results suggested that although internals (people who perceive internal health locus of control) may perceive more vulnerability to diseases than externals (people who perceive external health locus of control), the former are less anxious about personal vulnerability because preventive measures are believed to be effective in reducing the threat of

health problems. Externals, although possessing as much preventive behavior as internals, have less faith in the efficacy of this behavior, and therefore, have higher anxiety levels relative to vulnerability or susceptibility to health problems. Similarly, people who have an internal locus of control may perceive more vulnerability as a consumer within the health care system than people who have an external locus of control (HLC). However, the people with an internal HLC may be less anxious about personal vulnerability than the people with an external HLC because assertive health behaviors may reduce the threat of being victimized within the health care system.

Through a study of 110 children, ages 7 to 18 years, potential health behavior was measured as naturally occurring beliefs that reflect awareness of both preventive and adaptive behaviors beneficial to health (Gochman, 1971). An observation was made that potential health behavior cannot be viewed solely as a function of perceived vulnerability to health problems. Similarly, vulnerability is not a function solely of general feelings of control. Before predicting the degree of vulnerability to health problems perceived by an individual, feelings of control, potential health behavior and the degree to which health is salient to the individual must be considered. A relatively

minor degree of health salience was observed in young respondents. Events relative to health, such as perceived vulnerability to health problems and potential health behavior, were concluded to be more appropriately viewed as an interplay of factors and not as consequents of single antecedents. The observed interaction of the variables in the Gochman (1971) study supported the theoretical basis for the Health Belief Model developed by Rosenstock (1966, 1974).

In a recent study of 360 seventh grade students, Weisenberg, Kegeles, and Lund (1980) challenged the validity and generality of the Health Belief Model as a means for understanding health behavior in the population. The results of the study showed an inverse relationship between beliefs in susceptibility and health behavior, opposite that suggested by the Health Belief Model. The Health Belief Model supported a strong correlation between perceived susceptibility and health behavior. Additional findings suggested that health beliefs at the seventh grade level were difficult to change and often were unrelated to behavior. Weisenberg and associates (1980) concluded that health beliefs and behavior might be parallel developments in the individual that need not be causally related.

Superimposing the health consumer role on the

Health Belief Model the degree or assertiveness as a health consumer is a function of: a) the perceived vulnerability of the individual within the health care system, b) the extent the individual sees the role of the health consumer as important, and c) the benefits the individual believes will accrue as a result of assertive health behavior.

Conceptual Definitions

Health Consumer Knowledge

Health consumer knowledge was defined as the amount of information adolescents have regarding the role, responsibilities and rights of the individual eliciting health care. Cognitive and other developmental considerations effect the ability of the individual to learn, remember, and utilize health consumer information.

Health Focus

The degree of responsibility and control perceived by the adolescent in health care encounters was defined as the health focus. The context for the health focus is within the Health Belief Model.

Early Adolescents

Early adolescents were defined as those within the transitional period between childhood developmental

characteristics and the more independent, self-supporting features of later adolescence.

Research Hypothesis

The research hypothesis investigated in this project was as follows:

> A positive relationship exists between health consumer knowledge and the health focus of early adolescents.

Operational Definitions

Health Consumer Knowledge

Health consumer was operationally defined as information, such as accurate perceptions of health provider roles, medication regimens, illness progression and drug interactions; understood by adolescents regarding the role, responsibilities and rights of an individual seeking health care.

Health Focus

Health focus was operationally considered to mean a positive or negative entity apparent to an individual relating to health care experiences. Positive health focus is exemplified by a more internal locus of control and increased self-responsibility for health. Negative health focus is indicated by a more external locus of control and decreased self-responsibility for

health.

Early Adolescents

The operational definition for early adolescents was a group of seventh grade students, ages 12-14, enrolled in health classes at the junior high level.

CHAPTER III

METHODS AND RESEARCH DESIGN

Design

An exploratory study was conducted to observe the relationship between health focus and health consumer knowledge in early adolescents. The design, involving one group completing a pretest and posttest, was of a preexperimental nature. The purpose of the study was to explore the existence and characteristics of a relationship between the variables. No attempt to infer causality between the variables was made.

Sample

The target population consisted of early adolescents attending a high school in a rural area of Utah. The convenience sample included 44 students from two seventh grade health classes in a rural high school. Twenty-five males and 19 females between the ages of 11 and 14 years were asked to participate in the study. The sample was unique because of numerous characteristics. The predominant cultural and religious influence of the small rural community was The Church of

Jesus Christ of Latter-Day Saints (Mormons). Health care was usually provided by a variety of sources in a larger community (10 miles distant) and a larger metropolitan area (40 miles distant). The local high school (grades 7-12) was a participating site for the Robert Wood Johnson Foundation's National School Health Program and, therefore, had a structured program for school health services.

The health program at the school consisted of a health clinic, located in the office area, staffed by a full-time health assistant and a part-time school nurse practitioner. The health office facility was open during school hours to provide services to students for acute or chronic health problems, as well as for health maintenance needs. Initial screenings, first aid and basic health instruction were provided by the health assistant. Physical examinations, evaluation of acute/chronic problems (including diagnosis and treatment), counseling, referrals and health instruction were functions of the school nurse practitioner. Access to the health program had been available to the seventh grade students for three years prior to the study implementation. Students, therefore, had the ability to initiate personal health care encounters within the school setting.

Setting

The study was conducted through the seventh grade health class in a rural Utah high school. The school was located approximately 35 miles west of Salt Lake City. The total student population was 530, grades 7-12, at the time of the study.

Instrument

The same instrument was utilized for both the pre-test and posttest (Appendix A). An evaluation tool was designed specifically for the study by the researcher because locus of control scales for children found in the literature were not health specific and the health locus of control scales found were not designed for use with children. The researcher also wanted to test specific items related to health consumer knowledge.

The test format consisted of 12 true/false items to evaluate health consumer knowledge, two questions reagarding drugs and medicines to measure attitudes on a semantic differential scale, and eight statements placed on a five-point Likert scale, five regarding health locus of control and three concerned with identifying sources of health information. Demographic information including age and sex, was obtained. The instrument did not include any means of matching pre- and posttest results for individual subjects.

The application of the instrument before and after the teaching unit was used to evaluate: a) health consumer knowledge attained, b) any change in health locus of control, and c) any change in sources of health information.

Data Collection Procedure

Prior to implementing the study, approval for sample selection was obtained from the school district superintendent, the high school principal and the seventh grade health instructor. A consent form for participation was given to each prospective member of the sample. Telephone consent was obtained from the parents of those students willing to participate.

The consent forms specified:

1. Participation was voluntary,
2. Participation would not reflect in the course grade (to alleviate any element of coercion),
3. Materials collected would be handled in a confidential manner,
4. Students would be responsible for information presented through instructional unit, regardless of participation in the study (to assure attentiveness), and
5. Potential risks and benefits existed

in relation to participating in the study.

The time frame for the study encompassed five and one-half periods of the health class (approximately 4½ hours of instruction). One-half class period on Friday was used to introduce the study and obtain consent. The following Monday through Friday, the pretest, instructional unit and posttest were administered. A copy of the Health Consumerism Teaching Unit, the consent for participation form, the telephone consent form and the administrative permission to obtain the sample population are included in Appendices B and C.

CHAPTER IV

DATA ANALYSIS AND FINDINGS

Sample

The sample consisted of 25 males and 19 females between the ages of 11 and 14 years. The average age was 12-14 years. Forty-four students completed the pretest and 40 students completed the posttest. Four of the students were absent either for a portion of the teaching unit or on the posttest date and were, therefore, eliminated from the posttest group. The pre- and posttests were not matched for individual students.

All of the students in the sample were enrolled in the seventh grade health class at a rural high school where the study was conducted. The study involved approximately five and one-half consecutive health class periods.

Analysis of Findings

Test scores were divided into four areas represented on the tests: Health Consumer Knowledge; perceptions regarding medicines/drugs; health locus of

control; and sources of health information. Pre- and posttest scores are reported and followed by a comparative analysis.

Health Consumer Knowledge

Each of the Health Consumer Knowledge (HCK) items was scored "right" or "wrong." The percentages of correct responses, derived from frequency distributions are represented in Figure 2. The items specifying the health consumer role, the nurse practitioner role, and the proper regimen for penicillin treatment of strep, showed the greatest change between pre- and posttest scores.

Health Consumer Knowledge Item one defined the term "health consumer." Pretest scores were relatively low. However, at the time of the posttest, nearly 10% more of the students had the correct answer for defining "health consumer."

Practice allowances within nurse practitioner licensure were presented in HCK Item four. Student awareness of the nurse practitioner's role increased over 12%.

The proper compliance regimen for taking penicillin for the treatment of "strep throat" was explored in HCK Item seven. The data indicated after the teaching unit, 12.5% more students were aware that penicil-

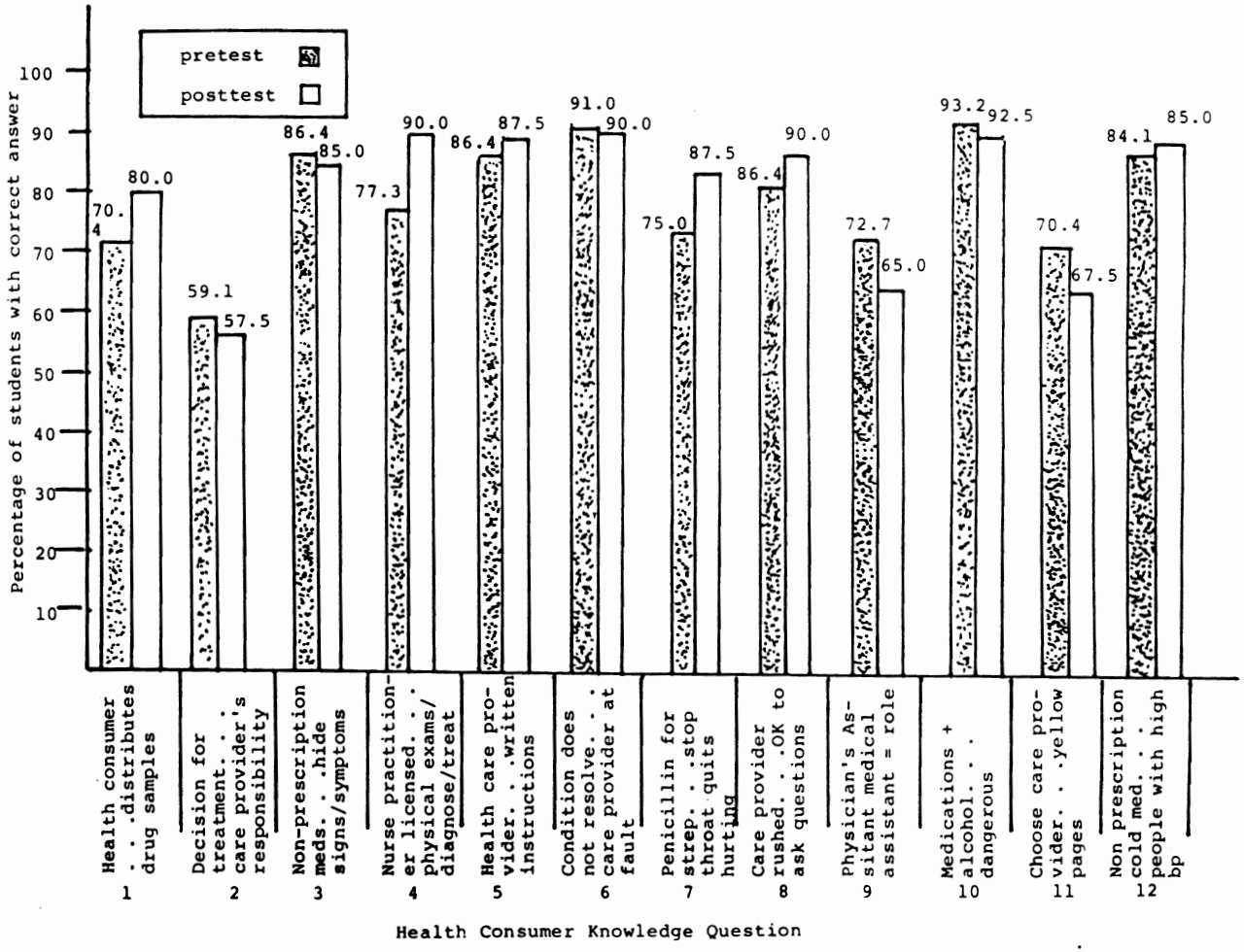

Figure 2. Health consumer knowledge pretest/posttest comparison by question.

lin therapy is not discontinued when symptoms disappear.

A Health Consumer Knowledge index score was calculated by summing the correct responses on the HCK portion of the tests. A t-test comparison showed no significant change between pre- and posttest index scores.

Chi square and Pearson's R correlation coefficients were generated to determine the relationship between pre- and posttest scores on individual HCK items. None of the items revealed a change significant at the .05 level. However, utilizing the Pearson's R analysis, Item one (health consumer definition), and Item seven (penicillin regimen) demonstrated a strong tendency toward a sigificant change (Table 1). Again, the data suggested knowledge regarding the health consumer role, the nurse practitioner role and the penicillin treatment course for strep throat was increased after completion of the instructional unit.

Medicines/Drugs

The next area represented on the instrument examined student perceptions regarding the terms "medicines" and "drugs." Figures 3 and 4 report the percentage distributions of responses recorded on a scale from 1 (safe/good) to 5 (dangerous/bad). T-test correlation demonstrated a very high level of significance

Table 1

Pearson's R Analysis Health Consumer Knowledge (HCK) Items

Health Consumer Knowledge Item	Pearson's R Coefficient	Probability
1. Health consumer. . .distributes drug samples	.15	.08
2. Decision for treatment. . . care provider's responsibility	-.01	.45
3. Nonprescription meds . . hide signs/symptoms	.06	.30
4. Nurse practitioner licensed . . .physical exams/diagnose/ treat	.16	.07*
5. Health care provider. . . written instructions	.02	.44
6. Condition does not resolve . . .care provider at fault	.05	.31
7. Penicillin for strep. . . stop throat quits hurting	.17	.06*
8. Care provider rushed. . . OK to ask questions	.02	.44
9. Physician Assistant medical assistant, = role	.06	.30
10. Medication plus alcohol. . . dangerous	.06	.30
11. Choose care provider. . . yellow pages	.02	.44
12. Nonprescription cold meds . . .people with high bp	.01	.45

Note. *Strongest tendencies toward significance level of .05.

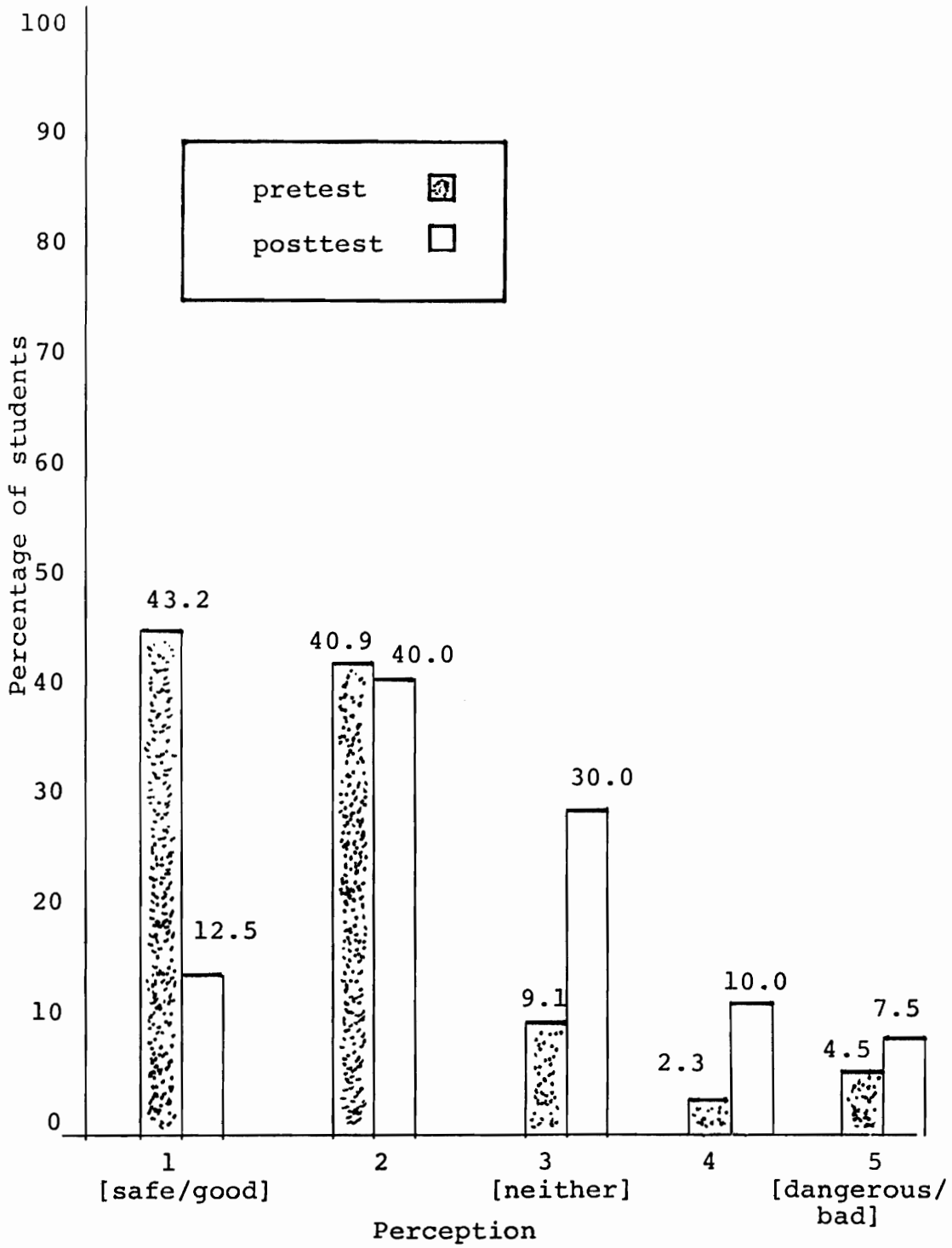

Figure 3. Percentage distribution regarding "medicines."

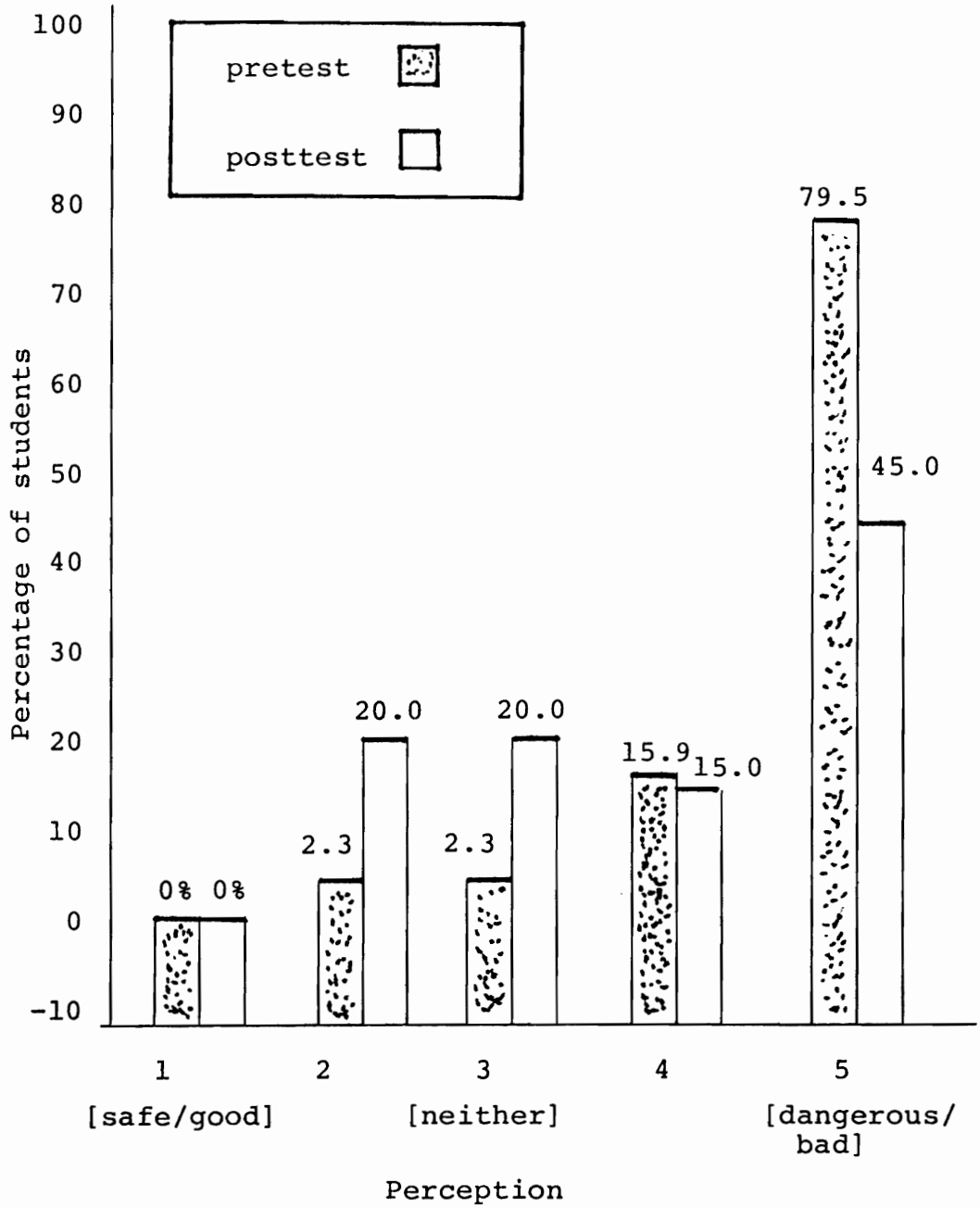

Figure 4. Percentage distribution perceptions regarding "drugs."

for the medicines/drugs questions (Table 2). General perceptions of the students shifted from medicines being safe or good and drugs being dangerous or bad to closer, midline perceptions.

Health Locus of Control

The following items on the Attitude Scale portion of the instrument were evaluated to identify the health locus of control of the students:

1. If I take care of myself, I will be healthy.
2. Illness cannot be avoided.
3. I am responsible for my own health.
4. When I am ill, it is because I have not been taking care of myself.
5. My health is my parents' responsibility.

A five-point Likert scale was utilized to measure internal versus external locus of control. The items were analyzed individually and corporately through an index score computed to allow all responses to indicate internal (1) to external (5) locus of control.

Table 3 represents the mean response for each of the locus of control items. T-test correlations revealed no significant change in scores upon either individual items or index scores. The data did not support the research hypothesis since no demonstrable

Table 2

T-test Correlation of Medicines/Drugs Perceptions

	Mean	T-value	Probability
Medicines			
Pre	1.8		
		-3.33	.001
Post	2.6		
Drugs			
Pre	4.7		
		4.23	.000
Post	3.8		

Table 3

Mean Response for Locus of Control Items

Locus of Control Index	$\bar{X}$[pretest]	$\bar{X}$[posttest]
Five-point Likert scale [usually to never]. [Never indicates internal (1) to external (5) locus of control]		
1. If I take care of myself I will be healthy	2.32	2.31
2. I am responsible for my health	1.66	1.83
3. When I am ill, it is because I have not been taking care of myself	2.57	2.40
Five-point Likert scale [(1) indicates external to (5) indicates internal locus of control]		
4. Illness cannot be avoided	3.18	2.98
5. My health is my parents' responsibility	2.36	2.48

change was effected in the health locus of control of the students.

Sources of Health Information

The final area of the instrument represented by Items five, six and seven of the Attitudes Scale, examined sources of health information. Responses were indicated on a five-point Likert Scale. The percentage distribution for responses is found in Table 4. The data suggested students were most likely to seek the personal physician as a source of health information. Books and personal friends, respectively, followed in their importance as sources.

T-test correlation between pre- and posttest responses revealed no significant changes in sources of health information. The strongest correlation (probability .154) was noted on Item five regarding the personal doctor as a source of health information. A tendency to move away from the doctor being the sole or major source of health information to exploring other resources appeared to be suggested through the data.

Table 4

Sources of Health Information

Percentage Distribution

Source	Percentage of Responses					$\bar{X}$ Mean Response
	Scale					
	1 [usually]	2	3 [sometimes]	4	5 [never]	
Doctor						
Pre	27.8	22.8	36.4	13.7	--	2.36
Post	45.0	20.0	25.0	7.5	2.5	2.03
Friends						
Pre	2.3	2.3	22.7	29.5	43.2	4.09
Post	5.0	5.0	15.0	37.5	37.5	3.98
Books						
Pre	6.8	2.3	59.1	20.4	11.4	3.27
Post	2.5	10.0	55.0	17.5	15.0	3.33

CHAPTER V

DISCUSSION OF FINDINGS

The purpose of the study was to identify the relationship between the health focus and the level of health consumer knowledge of early adolescents. The 44 students who participated represented a rather homogeneous group. Caucasian race, rural residence and LDS faith were the predominent demographic characteristics. The sample was, therefore, skewed in the direction of white, Morman adolescents living in a rural Utah setting.

The population mentioned above represents a large group of youth. Generalizing results to that population would not be totally appropriate due to an important characteristic of the sample group. The subjects had accessibility and were experienced in utilizing the unique health service program in that particular school. The majority of rural schools in Utah do not have a comprehensive school health program. School nurses, if available, in most cases are able to provide only part-time coverage, limiting their activities to minimal requirements (Hilbert, 1981). One

other school serving as a site for the Robert Wood Johnson Foundation School Health Program had a similar population to the study sample. Although the community is less rural, the results could possibly be generalized to this group. Further testing would be necessary to determine the validity of this generalization. The research hypothesis was not supported by the data. Low levels of significance on the Health Consumer Knowledge and Locus of Control portions of the data analysis were primarily responsible.

The study design involved one group responding to a pre- and posttest with teaching intervention between the two tests. In this design, threats to internal validity can be more readily controlled than factors influencing external validity (Campbell & Stanley, 1963).

The history factor was minimized, as the study was conducted over a short time span of one week. Having a written and specific format for the teaching unit delivered by the same presentor reduced the instrumentation factor. Statistical regression was not a significant factor since the group was not selected on the basis of extreme scores. Although the sample was nonrandomized, little bias was attributed to group selection since the only student characteristic examined to select the sample was current enrollment in the seventh grade health class. Very little

experimental mortality was encountered due to the short time span of the study and an agreement made by students to cooperate as participants. The effect of testing was present due to the pre- and posttest design.

The instrument may have been the greatest influence upon the low signifiance noted for differences in pre- and posttest scores. After being developed by the researcher, no pretesting of the instrument was done. The degree of reliability and validity was unknown prior to the study and would only be determined after numerous applications of the instrument. However, based upon the data, the reliability appeared to be questionable and revision with pretesting of the instrument are suggested prior to future study in the area.

Health Consumer Knowledge

The majority of the students exhibited knowledge of the health consumer topics on the pretest. In an effort to keep the instrument within an appropriate level of difficulty for the students, oversimplification may have occurred. To design an age-appropriate design, developmental characteristics of the group should have been assessed fully. A review of examinations for other health topics prepared for and completed by the sample group would have been useful. A true/false format decreased the reliability secondary

to the unknown influence guessing may have played in the results.

The data supported cognitive development theory and the findings of other studies (Natapoff, 1979; Millstein, 1981) through illustrating the ability adolescents have for abstract thought. Three of the twelve items presented hypothetical problems for the students to solve. Scores on the abstract items were consistently high.

Medicines/Drugs

The high degree of significance demonstrated on the medicine/drugs test items holds great relevance for health education. The current abuse of over-the-counter and prescription medications by "respectable" middle-class Americans is well documented. Over ten percent of the drug abuse studies relating to elderly patients between 1926 and 1975 addressed adverse pathologic and physiologic effects of inappropriate over-the-counter drug use (Michocki, 1982). A study investigating the over-the-counter drug use of college students found that many of the medications were used inappropriately. Usage of over-the-counter medications was primarily influenced by friends, packaging and media promotions rather than by health professionals (Cafferata et al., 1980). Educational

efforts clearly need to address the health consumer issue of over-the-counter drug abuse and misuse.

Lecture information and discussions added to the students' understanding of the proper compliance and usage of medications. The general realizations attained were: a) all medicines are drugs; b) medicines may have dangerous effects; and c) some drugs have medicinal purposes and may be used in a safe and beneficial manner. A compromise of the extreme perceptions recorded on the pretest were noted on the posttest.

The case study employed specifically aided the student in identifying problems and problem solving for a situation involving self-management of over-the-counter medications. The students appeared to be able to conceptualize the terms medicines and drugs in relation to the Health Belief Model (Rosenstock, 1974) through the varied learning experiences in the teaching unit.

The current emphasis upon drug and alcohol issues in health education is evident. The results of this study indicate that issues related to drugs indeed hold salience for young adolescents, thereby reinforcing that population as an appropriate target for drug abuse prevention education. Adequate and accurate information must be available to the young person to move through the concrete perceptions that "medicines"

are good and "drugs" are bad, characteristic of conventional moral development as described by Kohlberg (Miller, 1979). Understanding the responsibilities of medicine and drug use facilitates the adolescent moving toward independent decision-making regarding the use of such substances.

Health Locus of Control

No significant shift in health locus of control was supported by the data. The literature regarding locus of control stated that locus of control is developed over time and influenced by a variety of factors (Norwicki & Strickland, 1973; Tolor, 1978). The feasibility of significantly influencing the health locus of control of an individual over a period of one week was not supported by the data.

The data may have reflected the transitional nature of the adolescent period. The struggle for independence observed developmentally may have been represented by the majority of adolescents by choosing responses close to the middle of the scale on items rating internal versus external locus of control.

Sources of Health Information

From a developmental perspective, an unexpected finding was the lack of utilization of friends as sources of health information. Peer approval is of great

significance during the adolescent period (Lidz, 1976). One cannot conclude, on the basis of one question from the study, that peers are not important sources of health information for adolescents. The data may have suggested that health or health information is not a primary focus of peer relationships among adolescents.

CHAPTER VI

SUMMARY AND IMPLICATIONS

Summary

The inclusion of health consumer topics within school health education curricula is becoming more common. The quality and effects of such content upon students must be evaluated. The implications for health education programs influencing the roles of future health consumers are apparent. The role of a school nurse practitioner in a rural high school provided an opportunity for the investigator to introduce health consumer education to adolescents and evaluate the consequent effects.

With the cooperation of the health teacher, six sequential class periods of the two seventh grade health classes were reserved. One period was expended introducing the students to the proposed study, obtaining student consent for participation and administering a pretest. The following five days, the investigator presented the health consumer teaching unit designed for the purpose of this study. The posttest was administered upon completion of the teaching unit. Student

and teacher responses concerning cooperating or participating in the study were positive. Nonelicited responses from parents related a belief that the experience had been positive for the student subjects.

The framework for the study represented cognitive, affective and behavioral concepts. Adolescent development, health locus of control and the Health Belief Model were interrelated to conceptualize the adolescent formulating a personal identity and behaving as a health consumer. The study hypothesized a positive relationship between the health consumer knowledge and health focus of early adolescents.

Health focus, defined as the degree of self-responsiblity and locus of control perceived by an individual in health encounters, encompassed two multifaceted and dynamic concepts. The early adolescent, described as having incomplete cognitive development, may exhibit overt self-responsibility without having sufficient skills to respond adequately to specific states of health. In contrast, all self responsibility may be given by the adolescent to others even though adequate skills exist to solve a health concern. The related objective of the health consumer teaching unit was to assist the adolescent in accepting self-responsibility for health problems appropriate to personal abilities to cope with individual challenges.

Locus of control was viewed in a similar manner. The perceived internal or external locus of control was believed to represent a dynamic concept for individuals. The health consumer teaching unit focused on assisting the adolescents to perceive an internal locus of control within the appropriate parameters of a variety of health challenges.

The research hypothesis was not supported by the data. Attempts to identify a relationship between health focus and health consumer knowledge were not conclusive. The multidimensional nature of health locus of control and choosing sources of health information was reinforced. Data did provide strong evidence of inaccurate perceptions regarding medicines and drugs. Similar distortions existed regarding proper compliance and the usage behaviors of such products. The findings reinforced a need for preventive education targeting over-the-counter drug abuse/misuse. The health consumer teaching unit included content and varied learning experiences to advance adolescent decision making skills related to the purchase and use of over-the-counter drugs.

The immediate results of implementing the health consumer teaching unit were nonconclusive. Future ramifications of the teaching interventions cannot be predicted but optimally they would result in meeting

health education goals of guiding children toward optimal and lasting acquisition of living practices which are helpful, and which will enable them to make sensible decisions when they are confronted with new situations for which they are not prepared directly. The knowledge and attitudes attained are merely means of attaining this goal (Hochbaum, 1978).

Limitations

The problem of linking health education efforts to future behaviors must be acknowledged. The vast multitude of variables intervening over time cannot be totally controlled. The effect of such variables upon the dynamic concept of health focus cannot be determined. The time frame for the instructional unit may have been too short to effect change in the noted areas. School health education efforts tend to be more successful as a result of: a) multiple intervention approaches and b) comprehensive topic targets (Kreuter, 1982). The instructional unit was an introductory approach to consumer health issues. The time constraints for the study allowed only limited exposure to the contents. Furthermore, all activities were confined to the classroom, providing only hypothetical situations for application of consumer knowledge.

The comprehensive design of the health services program within the study setting may have greatly influenced the health attitudes and knowledge of the sample. Generalizing the results to other student populations would, therefore, be inappropriate. Because of the development characteristics unique to the adolescent, the findings cannot be generalized to a nonadolescent population. Cultural and demographic influences limited the application of findings to early adolescents in the sample population area.

Suggestions for Future Research

Due to the lack of significance of the data, further studies are needed to identify characteristics of a relationship between the health consumer knowledge and health focus of early adolescents. Critical examination of the terminology utilized would be beneficial. Considering the foundation of previous research regarding health locus of control, examining the relationship between health locus of control (rather than health focus) and health consumer knowledge may be more appropriate. Conceptually, health focus is a broader variable and therefore is more difficult to measure or control. Research regarding locus of control could possibly expand the implications of other researchers (Norwicki & Strickland, 1973; Masqud, 1980;

Tolor, 1978) to include locus of control concepts applicable to health and/or specific to an adolescent population.

A larger sample would increase the statistical significance of findings. The sample should have nearly equal numbers of males and females and include a broader racial, cultural and socioeconomic representation in order to clarify the contributions of race, sex, culture and socioeconomic status upon measurement variables. A larger more heterogeneous sample could be achieved by conducting the study in several different school districts, both urban and rural, and collecting data from a randomized sample of students within those school districts.

The evaluation tool could be expanded or changed in format to increase the data base. The inclusion of more demographic information would enable further inferences to be made regarding the data. A method for matching pre- and posttests of individuals should be considered. Utilizing a case study as part of the evaluation may provide more specific data regarding decision-making, skills and health consumer knowledge.

Observing adolescents interacting with a health care provider and scoring behavior according to specifically developed criteria could produce a more accurate assessment of health consumer skills. The results

of observations made before and after the implementation of health consumer instruction could then be compared.

Longitudinal studies could be done specifically to examine locus of control, health consumer knowledge or sources of health information as changes occur over time. An experimental design, utilizing a control group, would increase the significance of findings.

Changes in the curriculum could include: extending the course over a longer time frame, providing additional content and integrating the content with other topics taught throughout the health course. Unique learning experiences such as shopping for over-the-counter medications, "choosing" health care providers, interviewing various health care professionals and role playing health encounters could be incorporated.

Implications for Nursing Practice

The changing role of the health consumer must be recognized and respected by nurses. Traditionally, nurses have served as patient advocates and performed health education functions greatly needed to advance health consumerism. Nurse educators are in a primary position to instill a strong commitment toward health consumerism within the ideology of future nurses. Curricula need to address methods for assessing and solving the health consumer needs of patients with acute

and chronic health problems. The promotion of assertive health consumer behaviors within health maintenance plans would introduce a necessary dimension to holistic nursing care.

Making appropriate decisions regarding self-management of health requires an adequate knowledge base. School nurses and school nurse practitioners are in ideal roles to influence students toward health promoting behaviors. The data strongly outlined a need to provide information regarding the proper utiliztaion of prescription and over-the-counter medications. The definition of drug abuse has to include nonintentional or negligent abuse existing so strongly in American society.

Adolescence is a challenging, transitional period of growth and development. Nurses, not only in schools but in offices, hospitals, and other settings, may transform health care visits made by adolescents into learning experiences. Throughout visits, youths should be given the opportunity for independent problem identification and decision making regarding personal health care. Such learning experiences can be tailored for the individual, according to developmental capabilities, to allow positive, reinforcing outcomes. The early development of health consumer skills may be greatly facilitated by nurses serving young clients.

With a broad background in growth and development, pathophysiology, and psychosocial dynamics, the nurse practitioner is in a unique position to effect a change towards health promoting and assertive health consumer behaviors. The inclusion of health consumer education into practitioner services, would assist clients toward self-responsibility for health and compliance within treatment regimens.

APPENDIX A

PRE/POSTTEST

Male_____ Female_____

Age _____

Health Consumer Knowledge

True or False

_____ 1) A health consumer is a person who distributes drug samples to doctor's offices.

_____ 2) The decision of how to treat a patient's condition is totally the responsibility of the health care provider.

_____ 3) Taking nonprescription medications before seeing your health-care provider, may hide the signs/symptoms of that condition and make it harder to diagnose.

_____ 4) A "Nurse Practitioner" is licensed to conduct physical examinations as well as diagnose and treat a variety of conditions.

_____ 5) Having your health care provider (or you) write down his/her instructions may help you follow through on your own health care.

_____ 6) If a condition does not resolve within "a reasonable time" after seeing your health care provider, the care provider is always at fault.

_____ 7) If you are taking penicillin for strep throat, you may stop taking the penicillin when your throat quits hurting.

_____ 8) If your health care provider appears rushed or hurried during your visit, it is still alright to ask questions regarding your condition.

_____ 9) A "Physician's Assistant" role and a "Medical Assistant's" role are the same.

_____10) Taking medications, whether prescription or nonprescription, together with alcoholic beverages may be very dangerous.

_____ 11) The knowledgeable way to choose a doctor or other health care provider is to look in the yellow pages of the phone book.

_____ 12) Many nonprescription cold remedies should not be taken by persons who have high blood pressure.

Rate these two words according to your perception/beliefs of each using the scale below:

13) Medicines _____

14) Drugs _____

1	2	3	4	5
safe/ good		neither		dangerous/ bad

Attitudes Scale

Circle the number which best describes you/your feelings.

1) If I take care of myself I will be healthy.

1	2	3	4	5
usually		sometimes		never

2) Illness cannot be avoided

1	2	3	4	5
usually		sometimes		never

3) I am responsible for my health.

1	2	3	4	5
usually		sometimes		never

4) When I am ill, it is because I have not been taking care of myself.

1	2	3	4	5
usually		sometimes		never

5) My doctor is my source of health information.

1	2	3	4	5
usually		sometimes		never

6) My friends are my source of health information.

1	2	3	4	5
usually		sometimes		never

7) Books are my source of health information.

1	2	3	4	5
usually		sometimes		never

8) My health is my parents' responsibility.

1	2	3	4	5
usually		sometimes		never

APPENDIX B

HEALTH CONSUMERISM TEACHING UNIT

Target Population for Course

Junior High School students enrolled in health course. Students are all seventh graders. Class sizes are approximately 25 students.

Logistics

Unit will be presented in class over five consecutive class days. Approximately 45 minutes of the period can be devoted to teaching/learning activities. Therefore, the total unit on health consumerism will cover approximately 3.75 hours.

Objectives

1. Upon completion of this unit, the student will be able to construct his/her own definition of health consumerism.

2. Within a three-day period, the student will collect at least two articles dealing with health consumerism. The student will then have an opportunity to share a brief oral summarization of the articles with the remainder of the class.

3. Upon completion of this unit, the student will be able to identify:

    a. Four common reasons for patient/client noncompliance with suggestions and/or treatment from health care providers.

    b. Two basic rights of health consumers.

    c. Five suggestions for health consumers to incorporate in order to assure adequate care.

4. Upon completion of this unit, the student, given a case situation, will be able to make decisions which illustrate taking personal responsibility for his/her own health care.

5. While observing a role-play situation, the student will analyze the interaction between care provider and consumer in respect to information exchanged, overall understanding of both parties involved and probable outcomes of the interaction. This analysis will be the basis of a group-case discussion.

6. Upon completion of this unit, the student will have been exposed to information which may ultimately further develop his/her sense of control and pride with respect to his/her own health.

Outline of Events

I. Day One.

A. Introduction (set induction).

1. Presentation of bulletin board illustrating deficits in and high costs of, medical care. Explain responsibility of class members to add to collage of articles.

2. Define health consumerism.

3. Share objectives of unit, clarify prn.

4. Explore (through discussion) possible reasons for inadequate/expensive health care.

B. Common reasons for noncompliance.

C. Factors which influence compliance.

D. Rights of the health care consumer.

II. Day Two -- Responsibilities of the consumer which help to assure adequate care.

A. Selecting a health care provider.

B. Interacting with your care provider.

III. Day Three.

A. Role play -- doctor and patient interaction.

B. During role play, use of rating scale by students.

C. Case discussion.

D. Problem solving discussion.

E. Make up a health complaint -- describe it in detail.

IV. Day Four.

A. Share articles, awareness.

B. Review concepts.

C. Case study learning exercise.

V. Day Five.

A. Posttest.

B. Termination with sample group.

Content-Learning Activities

I. Day One - Format: Presentation of information with experience-sharing discussion.

A. Introduction -- ground rules for week (involvement -- no question is dumb).

1. Stats re: deficits in cure cost of health care (a primary reason for poor compliance, repeat visits).

2. Health consumerism (Dictionaries in class have students look up components of term).

Define: health
consumer.

3. Hand out objectives -- review these with class -- clarify prn.

4. Possible reasons for inadequate/ expensive care:

noncompliance

Seek care only for crisis,

inappropriate use of ER,

Poor compliance nearly 60%,

of these, approximately 50% return for care again with same illness.

B. Common Reasons for noncompliance:

1. Poor rapport with care providers.

[Blank overhead to write on--encourage students to come up with list themselves]

2. Misunderstand instructions for care.

3. Priority is not health especially in regards to financial implications of care.

4. Care provider does not give them what they want or expect.

(e.g., Doctor prescribes medicine when they just want counsel or vice versa when they want a prescription and the doctor won't provide it).

5. Ideas/attitudes about drugs.

a. "Drugs are better to be taken only when you're ill and not when you're better." Therefore, patient ceases taking antibiotics after symptoms cease but before course of therapy is complete.

b. "Need to give your body a rest, so quit all medications for awhile." Common amongst those receiving long-term therapy.

c. "May become dependent upon drugs."

d. "May become immune to drug then when you really need it, it won't work."

e. Perceptions of "medicine" (safe, familiar, necessary) versus "drugs" (dangerous, bad, nonuseful).

C. Factors which influence compliance (Study by Becker, 1975).

1. Personal estimates of vulnerability to and seriousness of specific illness.

2. Faith in efficacy of care (define efficacy).

3. Perceptions of cost (monetary, time, other).

4. Motivation (responsibility of individual).

5. Social influence (friends, family, media).

D. Rights of the health care consumer.

1. Can expect care provider to be competent in his/her field, to recognize his/her limitations, and to refer client to other professionals if need arises.

2. The care provider will provide backup when he/she is not available.

3. Care provider will regard details of consumer's condition as confidential.

4. Care provider will provide client with information regarding nature of illness unless it is considered not in best interest of client.

5. The care provider will practice within and fulfill the responsibilities placed upon him/her by legislation.

[Utilize blank overhead with discussion again].

II. Day Two -- Format: Presentation of information with experience sharing discussion.

Responsibilities of the consumer to assure adequate care.

A. Find a health care provider whom you respect and are willing to trust your health/life to. Continuity of care is important. Crisis care versus preventive care.

1. Understand various professions and levels of practice.

[Use of blank over-head through day to write down key points after first trying to elicit them from class via dis-cus-sion]

a. M.D., D.O., P.A., N.P.
b. Private versus group practice.
c. General versus specialized practice.
d. Philosophies -- illness versus health orientation.

2. How to choose care provider.

a. Referral from previous provider; Neighbors, friends; other health professionals; professional organizations chapters.

b. Make appointment to interview prospective care providers.

Questions re: availability during and and after hours; basic philosophy; background; stability (plans to stay in area).

B. Interacting with care provider -- tips for consumers.

1. Seek care of health professional early in course of disease.

2. Provide accurate historical information. (Therefore, you must know your medical book) -- handout.

3. Provide accurate information about current illness:

a. character
b. onset
c. location
d. duration
e. exacerbation
f. relief
g. radiation

[acquaint students with this to help describe complaints].

4. Do not "load up" on OTC drugs just prior to seeing care provider.

5. Do not use other people's medication. (Do not offer medicines intended for your use to others.)

6. Obtain written instructions for care.

7. If you don't understand instructions, be assertive and ask questions.

8. Ask health care provider for information regarding alternative modes of care and their consequences.

9. When you agree to a mode of care -- follow through with it -- if medicines are involved, take only as directed.

a. Do not take OTC preps unless directed to do so.

b. Do not mix with alcoholic beverages.

10. Be assertive.

a. Make a list (see handout) before going on to questions you want answered so you don't forget them.

11. Be knowledgeable about costs of care, insurance.

III. Day Three. Format: Varied learning experiences.

A. Role play "doctor-patient" interaction. Rating scale for student use while observing role play.

B. Discussion -- dynamics noted in role play.

C. Problem Solve -- How could interaction be facilitated by consumer?

D. Individual exercise -- make up a complaint and describe it in detail.

IV. Day Four. Format: Informal sharing of articles demonstrating integration of (or at least ability to recognize) concepts presented in class.

A. Review.
B. Case study -- work individually then share solutions.
C. Review key concepts of unit.

V. Day Five. Posttest (Written format).

A. After test completed:

1. opportunity for critique of unit,
2. thank participants -- ensure informing them of results of data compiled.

The Ask-the-Doctor List

BEFORE THE VISIT [complete this part yourself]:

1. Why am I going to the doctor? [the main reason]____

_____

2. Is there anything else that worries me about my health?

_____ NO

_____ YES [please list]_____

_____

3. What do I expect the doctor to do for me today [in ten words or less]:

_____

* * * * * * *

DURING THE VISIT [complete with help of doctor]

1. What is the diagnosis?_____

2. Why did I get it and how can I prevent it next time?

_____

3. Are there any helpful patient education materials available for the condition [describe]_____

_____

4. Are there any medicines for me to take?

_____ NO

_____ YES [describe]_____

5. Are there are special instructions, concerns, or possible side effects I need to know about the medicine?

_____ NO

_____ YES [describe]_____

* * * * * * * *

AFTER THE VISIT (complete with help of doctor)

1. Am I to return for another visit?

   _____ NO

   _____ YES [when]_____

2. What should I do at home?

   _____ Activity_____

   _____ Treatments_____

   _____ Precautions_____

3. Am I to phone in for lab reports?

   _____ NO

   _____ YES

4. Should I report back to doctor by phone for any reason?

   _____ NO

   _____ YES [when]_____

Day 3

Role Play "Doctor-Patient" Interaction

(Patient has been waiting in exam room for over ten minutes. Has never met the doctor she is about to see).

Doctor: (Doctor enters): "Hello. What seems to be the problem today?"

Patient: "I've been having headaches alot."

Doctor: "How much is alot?"

Patient: "I get them about every other day. . .usually in the afternoon."

Doctor: "That could be bothersome."

Patient: "The pain is quite intense, it. . ."

Doctor: (Interrupting) "I'm sure it is. Headaches can really make you feel incapable of doing anything."

Patient: "I just don't understand what's causing them."

Doctor: "Well, let's not worry about that. Lets just worry about stopping the pain."

Doctor: (Doctor pulls out instruments, starts examining patient, giving commands.) "Look over there." "Hold your head this way." "Don't talk." (Upon examining areas, saying:) "Hmmm. . . uh hub!"

Patient: "What did you see?"

Doctor: "Oh, everything is just fine. . .just fine." (Continually looking down, writing prescription). (Hands prescription over to patient as standing up placing hand on door, the doctor says:) "You get this filled and take the pills for your headaches. That should take care of it." (Doctor immediately exists.)

1. After completion of role play have students complete the role play rating scale.

2. Initiate discussion. Start by explaining that many poor communication skills were incorporated into the role play (Hopefully no one individual will ever encounter a similar health care provider.)

Role Play Rating Scale*

Rate the following statements positive (+) if you agree with them or negative (-) if you disagree with them in relation to the role play situation you will be observing. Put yourself in the place of the patient.

COGNITIVE (thinking, knowledge)

The doctor told me the name of my illness in words that I could understand.

After talking with the doctor, I know just how serious my illness is.

The doctor told me all I wanted to know about my illness.

This doctor is very good at explaining the reasons for medical tests.

The doctor has relieved my worries about being seriously ill.

The doctor told me what the medicines he prescribed would do to me.

I feel I understand pretty well the doctor's plan for helping me.

AFFECTIVE (feelings)

The doctor gave me a chance to say what was really on my mind.

I really felt understood by my doctor.

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*Adapted from Wolf, M.H. & Putnam, S.M. The medical interview satisfaction scale: Development of a scale to measure patient perceptions of physician behavior. Journal of Behavioral Medicine, 1 (4), 1978, 391-400.

After talking to the doctor, I felt much better about my problems.

I felt this doctor really knew how upset I was about my pain.

I felt free to talk to the doctor about private thoughts.

I felt this doctor accepted me as a person.

I felt that this doctor didn't take my problems very seriously.

This doctor was not friendly to me.

The doctor I saw today is someone I would trust with my life.

BEHAVIORAL (Actions)

The doctor gave me a thorough checkup.

The doctor was too rough when he examined me.

The doctor looked into all the problems I mentioned.

I was satisfied with the doctor's decision about what medicines to offer.

Case Study

One Friday morning at school, J.H., a 15-year old male, noticed he had a slightly sore throat. As the day progressed, he also noticed he had a mild headache, nasal congestion, and hoarseness.

After lunch, J.H. took two aspirin (upon his own discretion) which he got from a girl who had some in her locker. After approximately one hour, his headache continued(though it was not quite as intense) and J.H. noted that he was feeling more and more fatigued.

By the time school was over, he felt "generally poor." However, he had football practice (Football is very important to J.H.). In light of this, J.H. took three aspirin ("if two are good, then three must be better!") in hopes that the achiness which was coming over his body would cease. At practice, the coach noticed that J.H. had a poor attention span, was moving sluggishly, and appeared to have lost that usual "mischievious twinkle" in his eye. Upon the coach's inquiry into his health, J.H. replied, "I'm o.k." Nevertheless, the coach excused him from the second half of practice and sent him home.

Upon arriving home, J.H. did his best to put on a healthy fascade. In order to avoid his mother's observant eye, he excused himself early stating he wanted to gather his equipment, then go to bed early, as he planned to go skiing the next morning. Before retiring, J.H. took two "cold tablets," two aspirin, and gargled with his favorite mouthwash. This was all done in an effort to be well before morning.

Write your answers on a separate sheet of paper.

1. State all instances where, in your opinion, J.H. used poor or questionable judgment in regards to his health.

2. Criticize J.H.'s use of OTC medications (3 instances).

3. What do you think will be the probable effects of J.H.'s management of his illness?

4. How would you manage a similar onset of illness?

Health Consumerism Bibliography

Periodicals

Alderman, M.K. Self responsibility in health care/promotion: Motivational factors. Journal of School Health, 1980, 50, 22-24.

Becker, M.H. Sociobehavioral determinants of compliance with health and medical care recommendations. Medical Care, 1975, 8 (1), 10-24.

Canadian Medical Association. A declaration of reasonable expectations: A recognition of mutual rights and duties. Canadian Medical Association Journal, 1979, 121, 972-973.

Esmay, J.B., & Wertheimer, A.L. A review of over-the-counter drug therapy. Journal of Community Health, 1979, 5 (1), 54-65.

Evanson, R.V. Consumer values and the demand for professional services. American Pharmacy, 1979, 19 (6), 45-46.

Lazare, A., Ebenthal, S., & Wasserman, L. The customer approach to parenthood. Archives of General Psychiatry, 1975, 32, 553-558.

Stimson, G. Obeying doctor's orders: A view from the other side. Social Science and Medicine, 1974, 8, 97-104.

Stoller, E.P. New roles for health care consumers. Journal of Community Health, 1977, 3 (2), 171-7.

Wolf, M.H., Putnam, S.M., James, S.A., & Stiles, W.B. The medical interview satisfaction scale: Development of a scale to measure patient perceptions of physician behavior. Journal of Behavioral Medicine, 1978, 1 (4), 391-400.

Books

Citizens Board of Inquiry into Health Care for Americans. Heal your self. Newark, New Jersey: Bro. Dart, 1970.

Fogarty, J.E. International Center of Advanced Study in the Health Sciences, National Institute of Health, and American College of Preventive Medicine,(Task Force Report). Health promotion and consumer health education. Preventive Medicine USA. New York: Prodist, 1976, pp. 3, 84-5, 248-251.

LaPotra, J.W. Reducing the demand for health services. In Cost containment, caps and consumerism within the health care system (Vol. 2). Biloxi, Mississippi: Proceedings of the Annual Joint Systems Conference, February 13-17, 1976.

APPENDIX C

CONSENT FORMS

Telephone Consent Script

Hello Mr./Mrs_____. My name is Kathleen Stillion. I am a graduate nursing student at the University of Utah. I will be presenting a Health Consumerism unit, during the next week, in the health class at Grantsville High which your son/daughter _____ _____is in. Health Consumerism deals with the role, responsibilities, and rights of an individual in the health care system. In conjunction with the class, I will be seeking information about the health knowledge and attitudes of young people your son/daughter's age to present in my Master's thesis.

I am calling you to ask your permission to use the comments and responses made by _____on two identical tests, one given before the Health Consumerism unit is presented and one upon the completion of the unit. Of course, I will also ask for such permission from your son/daughter.

All information gathered will be confidential, that is, no name will be required on the tests. No known risk is involved in your son/daughter participating in this aspect of my study. Additionally, he/she may derive useful information for future decisions or actions regarding health care. The curriculum for the Health Consumer unit may be reviewed upon your request.

Although specific responses are confidential, I will be happy to send you a summary of the results once they are available, if you desire. If, at any point, during the collection of information, you wish to withdraw this consent, you may do so by contacting me. Should any questions arise, I may be contacted through the office at Grantsville High (884-3496).

Thank you for your cooperation. It is through parents like you that nurses and other health professionals are able to gain information to better meet the health care needs of young people.

(Approximately two minutes)

Consent for Participation in Study

This consent form corresponds with the research study to be conducted by Ms. Stillion.

As a participant, I understand that any tests, exercises, or learning activities of any type will be used only by Ms. Stillion to gather information about the health knowledge and attitudes of young people. It is understood that my name will not be required on such materials. In addition, these materials will have no influence upon my grade in the Health class. However, I will be responsible for any information provided by Ms. Stillion, which my regular classroom teacher chooses to include in his examinations.

I understand this is a low-risk study, with no known physical or emotional risks to the participants. Additionally, I may derive from my participation, useful information for future decisions I make or actions I take regarding my own health care.

In signing below, I agree to the above conditions of this study. Furthermore, I agree to cooperate to the best of my ability as a participant in Ms. Stillion's research study.

Participant's Name_____
Please print

Participant's Signature_____

Thank you for your participation,

_____
Kathleen A. Stillion, R.N., B.S.N.

Approval to Conduct Research Study

Let it be understood that Kathleen A. Stillion, a Master's degree candidate at the University of Utah, College of Nursing, has hereby secured necessary permission to conduct a research study at Grantsville High School.

The study is to involve the administration of a pretest and posttest, in addition to the presentation of a four-and-one-half hour instructional unit regarding health consumerism. The study will be implemented in the two seventh grade classes over a period of one week (The actual dates will be coordinated with Ms. Stillion and the health instructor). All materials and information collected will be handled confidentially. No known risks are involved with the proposed study. The derivation of useful information for future decisions and actions in health care is understood as a potential benefit to participants. Students in the proposed sample will be informed of the purpose of the study, assured of confidentiality procedures, familiarized with potential risks/benefits, and asked to sign a consent (assent) form prior to participation in the study.

The curriculum for the health consumerism unit to be implemented is subject to review by school administration and/or parents upon request. Responsibility for the inclusion of the health consumerism unit in the seventh grade health course will be assumed by the school district administration. If, for any reason, during the implementation of the study, the school administration wishes to withdraw consent for conducting the proposed study at Grantsville High School; the study will be ceased by Ms. Stillion.

Signed,

_____

Walden O. Gurney
Superintendent, Tooele
County School District

REFERENCES

Adams, G. Health awareness among students and parents in Southwestern Utah. Unpublished doctoral dissertation, The University of Utah, 1976.

Breslow, L. The challenge to health care in the Eighties. Public Health Reports, 1981, 96, 231-236.

Bryan, D. School nursing in transition. St. Louis: The C.V. Mosby Company, 1973.

Cafferata, G. Lach, P., & Refler, C. Use of over-the-counter home remedies by college students. College Health, 1980, 29, 61-65.

Campbell & Stanley, Experimental and quasiexperimental designs for research. Chicago: Rand-McNally, 1963.

Cron, T. The nature of "consumer health" as a public health concept. Public Health Reports, 1981, 96, 274-279.

Cummings, M., Becker, M., & Maile, M. Bringing the models together: An empirical approach to combining variables used to explain health actions. Journal of Behavioral Medicine, 1980, 3, 123-145.

Dickinson, D.J. School nursing becomes accountable in education through behavioral objectives. Journal of School Health, 1971, 41, 533-537.

Duval, M., & DenBoer, J. Consumer health education. Academy of Political Science Proceedings, 1980, 33, 168-181.

Ellis, E. Some problems in the study of adolescent development. Adolescence, 1979, 14, 101-108.

Fogarty, J.E. International Center of Advanced Study in the Health Sciences, National Institute of Health, and American College of Preventive Medicine, (Task Force Report). Health promotion and consumer education, Preventive Medicine USA. New York: Prodist, 1976, pp. 3, 84-5, 248-51.

Gochman, D. Some correlates of children's health beliefs and potential health behavior. Journal of Health and Social Behavior, 1971, 12, 148-54.

Godbout, J. Is consumer control possible in health care services? International Journal of Health Services, 1981, 11, 151-167.

Green, L., & Kreuter, M. Health education planning: A diagnostic approach. Palo Alto: Mayfield Publishing Company, 1980.

Hilbert, R. Survey of school health services. Unpublished report for Utah State Office of Education, Salt Lake City, Utah, 1981.

Hochbaum, G. Some selected aspects of school health education. Health Education, March/April, 1978.

Johnson, O.G. Tests and measurements in child development: Handbooks I and II. San Francisco: Jossey-Bass, 1976.

Kreuter, M. A case for philosophy. Journal of School Health, 1979, 49, 116-119.

Kreuter, M., & Green, L. Evaluation of school health education: Identifying purpose, keeping perspective. Journal of School Health, 1978, 48, 228-235.

Kuhn, D., Ho, V., & Adams, C. Formal reasoning among pre and late-adolescents. Child Development, 1979, 50, 1128-1135.

Langlie, J. Interrelationships among preventive health behaviors: A test of competing hypotheses. Public Health Reports, 1979, 94, 216-225.

Lidz, T. The person. Boston: Allyn & Bacon, Inc., 1975.

Maqsud, M. Relationship of locus of control to age and level of aspiration. Psychological Reports, 1980, 46, 766.

McCusker, J., & Morrow, G. The relationship of health locus of control to preventive health behaviors and health beliefs. Patient Counseling and Health Education, Summer 1979, 146-150.

Michocki, R. What to tell patients about over-the-counter drugs. Geriatrics, 1982, 37, 113-124.

Miller, J. Piaget, Kohlberg & Erikson: Developmental implications for secondary education. Adolescence, 1978, 13 (50), 237-249.

Natapoff, J.N. Children's views of health: A developmental study. American Journal of Consulting and Clinical Psychology, 1973, 40, 148-154.

Nowicki, S., & Strickland, B. A locus of control scale for children. Journal of Consulting and Clinical Psychology, 1973, 40, 148-154.

Reeder, L., Ramacher, L., & Forelnik, S. Handbook of scales and indices of health behavior. Pacific Palisades, California: Goodyear Publishing Company, 1976.

Rice, F.P. The adolescent. Boston: Allyn & Bacon, Inc., 1975.

Rosenstock, M. The health belief model and preventive health behavior. Health Education Monographs, 1974, 2, 354-386.

Rotter, J.B. Generalized expectancies for internal versus external control of reinforcement. Pyschological Monographs, 1966, 80, 609-31.

Shaw, M. Scales for the measurement of attitudes. New York: McGraw-Hill Book Company, 1967.

Starr, P. Changing the balance of power in American medicine. Millbank Memorial Fund Quarterly, 1980, 58, 166-171.

Tolor, A. Some antecedents and personality correlates of health locus of control. Psychological Reports, 1978, 43, 1159-1165.

Weisenberg, M., Kegeles, S., & Lunda. A. Children's health beliefs and acceptance of a dental preventive activity. Journal of Health and Social Behavior, 1980, 21, 59-74.

Wilson, R., & Elinson, J. National survey of personal health practices and consequences: Background, conceptual issues and selected findings. Public Health Reports, 1981, 96, 218-225.

vanden Heuvel, W. The role of the consumer in health policy. Social Science and Medicine, 1980, 14A, 423-426.